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## COMPUTER GENERATED INTERPRETIVE SOIL MAPS FROM SOIL SURVEY DATA

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To facilitate production of interpretive soil maps, computer software has been developed to interface soil boundaries with soil property data. Three Huntington County, Pennsylvania, Soil Survey maps, covering a total of 115 sq. km. at a scale of 1:20,000, were used as a test area. Soil boundaries and mapping unit centroids were digitized using a Tektronix 4954 graphics tablet. Mapping unit symbols were then appended to the centroid data and interfaced with soil property and other data supplied by the Soil Conservation Service.

Software was written for line segment cleaning, polygon processing, and final graphic display. A polygon processing program was written to determine the left and right soil mapping unit for each line segment. This program can also produce area definition files for use with the SYMAP line printer and CALFORM plotter mapping programs.

The complete data set was converted to compressed raster form for display on a color CRT, using a display program written for use with the RAMTEK color display system at the Office for Remote Sensing of Earth Resources at The Pennsylvania State University. Input for this program consists of definition of a selected area and up to 16 color codes. An interpretive map displayed is then output on a color CRT. A color code is selected for each soil type on the basis of soil properties. An automatic color coding scheme is presently being developed.